

ABSTRACT

A non-liposome based linker such as an antibody is disclosed for use attached nucleic acid molecules to sperm cells. The antibody is characterized by having binding affinity to a sperm cell and wherein the sperm cell bound with the antibody retains the ability to fertilize an oocyte. A resulting sperm-linker-nucleic acid complex may be used to generate genetically modified animals and cells by in vitro or in vivo fertilization with an egg cell. Introduction of exogenous DNA using this method in various animals (mice, pigs, chickens, and cows) are disclosed. Functional screening of gene with unknown function may also be performed using the disclosed method.

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